

REMARKS

Applicant requests reconsideration and allowance of the subject application in light of the changes above and the remarks that follow.¹ By this Amendment, Applicant has cancelled claims 2, 26, 30, 34, 37, 62, 63 and 69, and has amended claims 1, 25, 29, 33, 36, 60, 61 and 68 to incorporate subject matter of the cancelled claims. Claims 1, 3-25, 27-29, 31-33, 25, 36, 38-61, 64-68 and 70-75 are now pending, of which claims 12-24, 47-59 and 72 are withdrawn from consideration, and claims 7, 8, 27, 31, 42, 43, 64 and 65 have been indicated as allowable.

Rejection of Claims 29, 60, 61, 73 and 74 Under Section 103(a)

Applicant respectfully traverses the rejection of claim 29 under Section 103(a) as allegedly not being patentable over U.S. Patent 6,219,464 to *Greggain et al.* ("*Greggain*") in view of U.S. Patent 5,019,903 to *Dougall et al.* ("*Dougall*"). Claim 29 incorporates subject matter of claim 30 and now recites, *inter alia*, "a direction estimator which estimates the direction of the slant line when it is determined that there is a possibility of the edge having a slant-line shape; and a precision determiner which determines precision of the estimation." In the Office Action, the Examiner points to column 7, lines 14-25 of *Greggain* for its disclosure of a threshold value which allegedly teaches the claimed "determin[ing] precision of the estimation. (Office Action, p. 7.) Applicant disagrees.

The cited portion of *Greggain* describes using a threshold to determine an interpolation direction based on whether a difference values between pixels is greater than a threshold. (*Greggain*, col. 7:14-25, FIGs. 7A & 7B, steps 54, 56, 58, 66-70.) But the threshold value is not disclosed as having a relationship to "precision." It simply avoids the selection of an incorrect interpolation direction. Accordingly, *Greggain* cannot be considered to teach or suggest, a "precision determiner," as recited in claim 29.

¹ The Office Action contains statements characterizing the claims and related art. Regardless of whether any such statements are specifically addressed herein, Applicant's silence as to these characterizations should not be construed as acceptance of them.

Dougall is silent as to the claimed "precision determiner" and the Examiner does not rely on *Dougall* for any such disclosure or suggestion. Thus, because neither *Greggain* nor *Dougall* disclose or suggest the above-noted feature recited in claim 29, taken individually or in combination, the references cannot support a *prima facie* case for rejecting claim 29 under Section 103(a). Applicant, therefore, respectfully requests that the rejection of claim 29 be withdrawn.

Independent claims 60, 61, 73 and 74, although having a different scope than claim 29, recite features similar to those recited in claim 29. Accordingly, the purported combination of *Greggain* and *Dougall* cannot support a rejection of claims 60, 61, 73 and 74 for the same reasons given above for claim 29.

Rejection of Claims 1, 3-6, 11, 25, 33, 35,
36, 38-41, 46 and 68 Under Section 103(a)

Claim 1 incorporates subject matter of cancelled claim 2. To the extent the rejection of claim 2 under Section 103(a) as allegedly not being patentable over the purported combination of *Greggain* and *Dougall* in view of U.S. Patent 5,894,329 to *Takeda et al.* ("*Takeda*") applies to claim 1, Applicant traverses the rejection.

The Examiner concedes that *Greggain* and *Dougall* fail to disclose or suggest "compar[ing] the interpolated pixel value with an original input pixel value and adjust[ing] the interpolated pixel value based on the comparison result," as recited in present claim 1. *Takeda* does not cure these deficiencies.

The Examiner relies on *Takeda* for its alleged disclosure of comparing a pixel of a previous scan line with an interpolated pixel. (Office Action, pp. 9-10.) On the contrary, *Takeda* performs an interpolation based on a comparison of scan lines, wherein a current scan line is compared with a previous scan line. (*Takeda*, col. 3:60-4:7.) Since the scan lines are different, they cannot include the same pixels. As such, *Takeda* says nothing with regard to "compar[ing] the interpolated pixel value with an original input pixel value" and

"adjust[ing] the interpolated pixel value based on the comparison result" (emphasis added), as recited in Applicant's claim 1.

Because neither *Greggain*, *Dougall* nor *Takeda* teaches or suggest the above-identified features of claim 1, the references, when taken individually or in combination cannot support a rejection of claim 1 under Section 103. Applicant, therefore, respectfully requests that the rejection of claim 1 be withdrawn.

Furthermore, the Office Action does not include the findings required to support an obviousness rejection of claim 1 under Section 103. With regard to cancelled claim 2, the Examiner asserts, "It would have been obvious to combine Dougall and Greggain with Takeda to reduce the amount of pixel error caused by the conversion method." This rationale is insufficient to support a prima facie case of obviousness.

It appears the Examiner's asserts that the purported combination of *Dougall* and *Greggain* can be combined with *Takeda* according to known methods to predictably result in the subject matter of Applicant's claim 1. However, to support this rationale, M.P.E.P. § 2142(a) states that the Examiner must articulate the following::

- (1) a finding that the prior art included each element claimed, although not necessarily in a single prior art reference, with the only difference between the claimed invention and the prior art being the lack of actual combination of the elements in a single prior art reference;
- (2) a finding that one of ordinary skill in the art could have combined the elements as claimed by known methods, and that in combination, each element merely performs the same function as it does separately;
- (3) a finding that one of ordinary skill in the art would have recognized that the results of the combination were predictable; and
- (4) whatever additional findings based on the Graham factual inquiries may be necessary, in view of the facts of the case under consideration, to explain a conclusion of obviousness.

As already set forth above, the purported combination of references does not disclose or suggest "compar[ing] the interpolated pixel value with an original input pixel value" and "adjust[ing] the interpolated pixel value based on the comparison result," as recited in Applicant's claim 1. Thus, the rejection of claim 1 under Section 103 should be withdrawn for at least this reason.

Additionally, the Examiner has failed to articulate, at least, that each element of the applied references performs the same function as it would separately, that one of ordinary skill in the art could have combined the applied references, and that the result of the purported combination would have been recognized as predictable by one of ordinary skill in the art. Accordingly, the rejection of claim 1 under Section 103 is improper for these additional reasons and Applicant requests that it be withdrawn.

Independent claims 25, 33, 36, 68, 71, 75 although of different scope than claim 1, recite subject matter similar to that recited in claim 1. Accordingly, claims 25, 36, 60 and 68 are allowable over *Greggain*, *Dougall* and *Takeda* for similar reasons to those set forth above with regard to claim 1.

Claims 3-6, 11, 35, 38-41 and 46 are allowable at least due to their corresponding dependence from claims 1, 25, 33, 36 and 68.

Rejection of Claims 9, 10, 28, 32, 33, 35,
44, 45, 66, 67 and 70 Under Section 103(a)

Claims 9, 10, 28 32, 33, 35, 45, 66, 67 and 70 were rejected under Section 103(a) for allegedly not being patentable over various combinations of *Greggain*, *Dougall* and *Takeda* with U.S. Patent 6,262,773 to *Westerman* and U.S. Patent Publication 2003/0112369 to *Yoo et al.* ("Yoo"). As noted above, *Greggain*, *Dougall* and *Takeda* fail to disclose or suggest "compar[ing] the interpolated pixel value with an original input pixel value," and "adjust[ing] the interpolated pixel value based on the comparison result," as recited in claim 1, for example. Applicant respectfully submits that *Westerman* and *Yoo* also fail to disclose or

suggest the this subject matter and the Examiner does not rely on *Westerman* or *Yoo* for any such teachings or suggestions. Accordingly, when taken individually or in combination, the purported combination of *Greggain*, *Dougall*, *Takeda*, *Westerman* and *Yoo* cannot support a rejection of claims 9, 10, 28, 33, 35, 45, 66, 67 and 70 under 35 U.S.C. § 103(a).

Conclusion

For the reasons set forth above, Applicant respectfully requests allowance of the pending claims.

If additional fees are required for any reason, please charge Deposit Account No. 02-4800 the necessary amount.

Respectfully submitted,

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Date: September 15, 2008

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